

# Visible Learning

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# What is Visible Learning?

- Visible Learning is the result of 15 years' research and syntheses over 800 meta-analyses (over 50,000 studies) relating to the influences on achievement in school-aged students. It presents the largest ever collection of evidence-based research into what actually works in schools to improve learning (and what doesn't).

# Meta-analysis & effect size

- The vast majority of innovations or educational strategies can be said to “work” because they can be shown to have a positive effect.
- But a student left to work on his own, with the laziest supply teacher, would be likely to show improvement over a year.
- In 1976 Gene Glass introduced the notion of meta-analysis – whereby the effects of each study are converted to a common measure or **effect size**.
- An effect size of 1.0 would improve the rate of learning by 50% and would mean that, on average, students receiving that treatment would exceed 84% of students not receiving that treatment.
- At least half of all students can and do achieve an effect size of 0.4 in a year (the hinge point), so anything with an effect size of over 0.4 is likely to be having a visible effect.

# Influences on student learning

Expectations	Mastery Learning
Homework	Challenge of Goals
Feedback	Aims & Policies of the School
Ability Grouping	Peer Tutoring
Teacher-Student Relationships	

# Diamond Nine Activity

- With a partner discuss these nine factors that influence student achievement
- Place them in a diamond shape, in order of how great you think their positive influence is (on average)
- Think about why they have this effect

# Mastery Learning:

All children can learn when they focus on mastering tasks in a collaborative environment.

Appropriate learning conditions in the classroom include:

- High levels of cooperation between classmates;
- Focused teacher feedback that is both frequent and diagnostic;
- Variable time allowed to reach levels of attainment

# Influences on student learning

Feedback

Teacher-Student Relationships    Mastery Learning

Challenge of Goals    Peer Tutoring    Expectations

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Homework

Aims & Policies of the School

Ability Grouping

# Influences on student learning

*John Hattie 1999-2009 – research from 180,000 studies covering almost every method of innovation*

Effect Size

- Feedback 0.73
- Teacher-Student Relationships 0.72
- Mastery Learning 0.58
- Challenge of Goals 0.56
- Peer Tutoring 0.55
- Expectations 0.43
- Homework 0.29
- Aims & Policies of the School 0.24
- Ability Grouping 0.12



If feedback is so important, what kind of feedback should be taking place in our classrooms?

Discuss in pairs for 2 minutes

“The most powerful single influence enhancing achievement is feedback”

- Quality feedback is needed, not more feedback
- Much of the feedback provided by the teacher to the student is not valued and not acted on
- Students with a Growth Mindset welcome feedback and are more likely to use it to improve their performance
- Oral feedback is much more effective than written
- The most powerful feedback is provided **from the student to the teacher**

How could we obtain more  
feedback from students?

How can we ensure we act on  
this feedback to raise  
achievement?

Discuss in pairs

# Expectations

- *What do we base our expectations on of student learning?*

# Duesk and Joseph 1983 said:

- Attractiveness
- Prior conduct of child
- Cumulative information about child
- Social class!
- Weinstein (2002) has shown that students know that they are treated differently and that teachers have higher expectations of some than others!
- ***WE KNOW WE ARE ALL GUILTY BUT AT LEAST WE CAN BE AWARE. We need to prepare to be surprised! We need to stop negative expectations in their tracks. Could we use this as a team focus?***

# Expectations: Tracking & Mindsets

- **Tracking:** There are differences in classes where teachers aim to select talent for different pathways (such as schools with tracking) compared with those where achievement cultures aim to develop talent in each child.
- **Fixed & Growth Mindsets:** There are also differences in classes where teachers believe that achievement (and intelligence) is difficult to change because it is fixed and innate compared to teachers who believe achievement (and intelligence) is changeable (Carol Dweck 2006).
- **“Be prepared to be surprised”** seems to be the mantra to avoid negative expectation effects.

# Setting Goals

- There is strong evidence that challenging, achievable goals influence achievement, **provided the individual is involved in setting them.**
- Locke & Latham (1990) found that achievement is enhanced to the degree that teachers set challenging, rather than “do your best” goals, relative to the students’ present competencies. **There is a direct linear relationship between the degree of goal difficulty and performance .**
- Goals have a self-energizing effect if they are appropriately challenging as they can motivate students to exert effort in line with the difficulty or demands of the goal.
- Commitment to the goals helps, but is not necessary for goal attainment – except for Special Needs students, where commitment makes a major difference.

# Setting Goals – Personal Bests

- Martin (2006) argued that a good method to assist students in setting task-specific and situation-specific goals was to use the notion of “personal bests”.
- He found that setting **personal bests had high positive relationships to educational aspirations, enjoyment of school, participation in class and persistence on the task.**



Are your students fully involved  
in setting goals?

Are their goals as high as  
possible while still being  
attainable?

Discuss in pairs

# Mastery Learning:

All children can learn when they focus on mastering tasks in a collaborative environment.

Appropriate learning conditions in the classroom include:

- High levels of cooperation between classmates;
- Focused teacher feedback that is both frequent and diagnostic;
- Variable time allowed to reach levels of attainment

Is our classroom climate truly  
attuned to Mastery Learning?

What could we be doing to provide  
more opportunities for  
Mastery Learning?

# Teacher – Student Relationships

- Developing a **warmer socio-emotional climate** in the classroom, fostering effort and thus engagement for all students, requires teachers to enter the classroom with certain conceptions about progress, relationships and students.
- It requires them to believe **that their role is that of a change agent – that all students can learn and progress, that achievement for all is changeable and not fixed, and that demonstrating to all students that they care about their learning is both powerful and effective.**

*Visible Learning P.128, The Contributions from the Teacher – J.Hattie 2009*

- In a study by Russell Bishop students, parents, management and teachers were asked what are the major influences on student achievement.
- *WHAT DO YOU THINK EACH ANSWERED?*

# ANSWERS

- All except the teachers said the relationships between the teachers and the students!!!!
- Teachers thought:
- Child's attitude and disposition
- Child's home background
- Working conditions of the school
- OR that pupils who are not learning are deficient in some way.
- *How can we combat this attitude in ourselves?*

# Ability Grouping

- 88% of children placed in sets or streams at age 4 remain in the same groupings until they leave school (*Annabelle Dixon, Forum 2002*)

# Ability Grouping

- Effect sizes of whole class ability grouping (0.12) and within class ability grouping (0.16) are uniformly low.
- Expectations and goal setting become even more important if children are grouped by ability



# DfES Standards Site (Gifted & Talented section)

- “If schools continue to use predominantly mixed-ability settings, they should be able to demonstrate high pupil attainment relative to other, similar school”
- Why no similar warning to schools that persist in using rigid setting procedures, when research shows that these systems do not raise achievement?

# Creating Independent Learners

You need two things:

Great schools

Expert teachers

# Great Schools

- Create a climate that all are responsible for the progress of the students
- Use information openly and intelligently
- Use research-based evidence
- Collaborate to improve learning
- Develop expert teachers

*Building Teacher Quality – John Hattie, University of Auckland  
2003*

What are some differences  
between experienced teachers  
and expert teachers?

Discuss in pairs for 2 minutes

Close Hand-outs

# As an Expert Teacher you

## **Meet with colleagues regularly to discuss:**

- Evidence of progress of your and their students
- How to improve your teaching
- How to change your teaching
- How to do this in the light of evidence that what you are doing at present is not having the effect that you want

*Building Teacher Quality (The difference between experienced teachers & expert teachers)– John Hattie, University of Auckland 2003*

# The teacher

- ‘Not all teachers are effective, not all teachers are experts and not all teachers have powerful effects on students. It is teachers’ variability in effect that is critical.
- EXPERT TEACHERS ARE DISTINGUISHED BY 3 DIMENSIONS:
  - **Challenge**
  - **Deep Representation**
  - **Monitoring and feedback**
  - *Do you have a powerful effect on your pupils and how do you know? – Discuss in pairs*

# Do you feel psychologically safe to discuss:

- Successes and failures in **your classroom**
- How to improve **your teaching** (not the kids, not the curriculum, not the resources, not the class size, not the conditions....)
- What assessment says about what **you are doing** (not the kids)

Discuss in pairs for two minutes

# Influences on student learning – Transition Issues

“The greatest single issue facing the further enhancement of student achievement is the need for teachers to have a **common perception of progress**. When a student moves from one teacher to another, there is no guarantee that he or she will experience increasingly challenging tasks, have a teacher with **similar (hopefully high) expectations of progress**, or work with a teacher who will grow the student from where he or she is, as opposed to where the teacher believes he or she should be at the start of the year.”

*Visible Learning by Professor John Hattie (2009)*



How could we improve transition  
from one teacher to another to  
ensure we provide increasingly  
challenging tasks for every child?

- Discuss for two minutes

# John Hattie on the art of teaching

- “...the act of teaching reaches its epitome of success after the lesson has been structured, after the content has been delivered, and after the classroom has been organised. The art of teaching, and its major successes, relate to “what happens next” – the manner in which the teacher reacts to how the student interprets, accommodates, rejects and/or reinvents the content and skills, how the student relates and applies the content to other tasks, and how the student reacts in light of success and failure apropos the content and methods that the teacher taught. **Learning is spontaneous, individualistic, and often earned through effort. It is a timeworn, slow, gradual, fits-and-starts kind of process, which can have a flow of its own, but requires passion, patience, and attention to detail (from the teacher and the student)”.**